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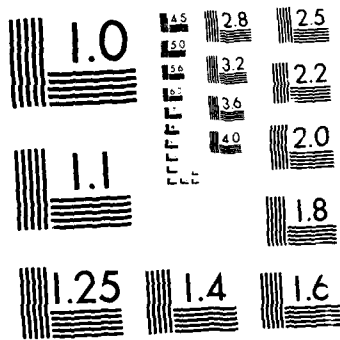
THEORY OF SUPERCONDUCTIVITY IN OXIDES(CU) PRINCETON UNIV 171
NJ DEPT OF PHYSICS P W ANDERSON 18 MAY 88
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REPORT

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Meantime Doucot, Liang and Shastry as well as myself, John, et al were doing very interesting work on the pure Heisenberg system, which is related but not necessarily crucial to understanding the superconducting properties. This is described in the various papers by these authors.



CMT GROUP PUBLICATION LIST

P.W. Anderson

1. P.W. Anderson, Phys. Rev. Lett **59**, 2497 (1987)
Comment on "Two Dimensional Antiferromagnetic Quantum Fluid State in La_2CuO_4 " by Shirane, et al
2. P.W. Anderson, Z. Zou, Phys. Rev. Lett, **60**, 132 (1988)
"Normal" Tunneling and "Normal" Transport: Diagnostics for the Resonating-Valence-Bond State
3. P.W. Anderson, Proceedings of Nature Conference *Perspectives in the new Superconductivity*, Boston, November 9-11, 1987
The Theory of High T_c Superconductors
4. P.W. Anderson, Proceedings of the International Conference on *High-Temperature Superconductors and Materials and Mechanisms of Superconductivity*, Interlaken, Switzerland, Feb. 29-March 4, 1988 (J. Müller, J.L. Olsen, eds.), to be published in Physica B.
The Theory of High T_c Superconductors
5. J.M. Wheatley, T.C. Hsu, P.W. Anderson, Phys. Rev. B1 **37**, (1988) Rapid Communications.
Interlayer Pair Hopping: Superconductivity from the RVB State
6. P.W. Anderson, Talk given at AAAS Annual Meeting, *The New Superconductivity*, Boston, Feb. 11-55, 1987
A Theory of the New Superconductors: "Popular" version for AAAS
7. P.W. Anderson, S. John, B. Doucot, S. Liang, submitted to Phys. Rev. Lett.
Fermions and Topology in the Two-Dimensional Antiferromagnet: Topological Stability of "Merons"
8. S. Liang, B. Doucot, P.W. Anderson, Submitted to Phys. Rev. Lett.
Some New Variational RVB-type Wave Functions for the Spin 1/2 Antiferromagnetic Heisenberg Model on a Square Lattice

J. Wheatley

1. J. Wheatley *Fermi Condensate: a Saddle Point View of RVB*, to be submitted to Physica C
2. J. Wheatley, *Does the Two-dimensional Large-U Hubbard Model Ever Show Fermi Liquid Behavior?*, to be submitted to Journal of Physics C.

Z. Zou

1. Z. Zou and P.W. Anderson, *Neutral Fermion, Charge e Boson Excitations in the RVB State and Superconductivity in La_2CuO_4 -Based Compounds*, Phys. Rev. Lett. **B 37**, 627 (1988)
2. Z. Zou, *$SU(2)$ Gauge Symmetry and Anomaly of $S = 1/2$ Antiferromagnetic Heisenberg Model in $2+1$ Dimension*, Submitted to Phys. Rev. Lett., (1987)

B. Sriram Shastry

1. Exact Solution of a $S = 1/2$ Heisenberg Antiferromagnetic Chain with long Range interactions, Phys. Rev. Lett. **60**, 639 (1988)

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